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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/583,636	03/29/2007	Georg Curtius	2003P01781WOUS	3583
46726	7590	08/11/2009	EXAMINER	
BSH HOME APPLIANCES CORPORATION INTELLECTUAL PROPERTY DEPARTMENT 100 BOSCH BOULEVARD NEW BERN, NC 28562			WALDBAUM, SAMUEL A	
			ART UNIT	PAPER NUMBER
			1792	
			MAIL DATE	DELIVERY MODE
			08/11/2009	PAPER

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/583,636

Filing Date: March 29, 2007

Appellant(s): CURTIUS ET AL.

James E. Howard, Reg. No. 39,715  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed June 18, 2009 appealing from the Office action  
mailed November 24, 2008.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**WITHDRAWN REJECTIONS**

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. The rejection of Claim 11 under 35 U.S.C 112 paragraph 1 for new matter is hereby withdrawn.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

3539153	Wennerberg	11-1970
4982606	Adamski et al	1-1991
6294906	Kuechler	9-2001

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Double Patenting***

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Claims 11 and 12 provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 11 and 12 of copending Application No. 10/583697. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 112***

3. Claim 11 rejected under 35 U.S.C. 112, first paragraph, is hereby withdrawn.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

***Claim 11-19 rejected under 35 U.S.C. 103(a) as being unpatentable over Wennerberg et al (U.S. 3,539,153) in view of Adamski et al (U.S. 4,982,606, hereafter '606).***

6. Claims 11-14 and 17-18: '153 teaches a dishwasher (col. 1, lines 1-7) with a chamber for the dishes (col. 2, lines 40-75), with a washing, rinsing and drying steps (col. 3, lines 5-20), with a cleaning agent dispenser (col. 4, lines 40-55) and a fluid carrier (col. 2, lines 45-55), with capacitance fluid level sensors (col. 2, lines 55-75) a circuit connected to the sensor (col. 2, line 40-col. 4, line 55), where it is inherent how a capacitance level sensor works by changing its capacitance based of the dielectric change based off the level of the water. '153 teaches using multiple sensors to determine height, not just one and does not specify the shape of the sensor. '606 is a fluid level sensor. '606 teaches a rectangular sensor composed of 2 capacitive plates (fig. 2, sensor plates, part 50 and 52 are rectangular) and that the sensor can detect multiple heights of the fluid based of the dielectric constant which changes with the depth of the water (col. 4, lines 40-69, col. 6, line 50-col. 7 line 69) allowing one sensor to detect multiple heights. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have use the rectangular sensor taught by '606 in apparatus '153 to detect multiple levels of

height of the fluid, thus reducing the number of fluid level sensor to one. Claims directed to apparatus must be distinguished from prior art in terms of structure rather than function. *In re Danly*, 263 F.2d 844, 847, 120 USPQ 528, 531 (CCPA). “[A]pparatus claims cover what a device is not what a device does” *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990).

7. Claim 15: `153 teaches the use of multiple sensor arranged specific heights in the tub (col. 2, lines 60-70).

8. Claims 16 and 19: `153 does not specify how the dishes are cleaned. The examiner takes official notice that it is common to use a spray arm to spray water on to the dishes thus the dishes are cleaned. `153 teaches that the capacitance level sensors are mounted in a manner to detect the level of the water at different heights, low, medium and high (col. 2, lines 30-75). `606 teaches that the sensor is protected from the water source where the mounting points and circuits are protected from direct contact with the water (fig. 1, the water source, parts 24, 26 and 28, the sensor part 48, which is protected from the water being directly sprayed on the sensor by the tub, part 14). It would have been obvious to one having ordinary skill in the art at the time the invention was made to have placed the low sensor in the base to detect the low level of water where it is not directly hit by the spray arm to have protected the circuit from direct contact with the fluid and only the probes projected into the washing container as taught by `153 in view of `606 since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

***Claim 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Wennerberg et al (U.S. 3,539,153) in view of Adamski et al (U.S. 4,982,606) as applied to claim 11 above further in view of Kuechler (U.S. 6,294,906, hereafter '906).***

‘153 and ‘606 teaches all the limitations of claim 11 above.

9. Claim 20: ‘153 teaches that the sensor can be mounted in a manner to sense the water level (col. 2, lines 30-75) but just does not state exactly how it is mounted. ‘606 teaches a mounting the sensor with fasteners (col. 5, lines 1-67). ‘906 is solving the same problem as the applicant of mounting a sensor in a secure fashion. ‘906 teaches using an adhesive to mount the sensor to a support (col. 3, lines 30-45). All of the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art at the time of the invention, meaning that an adhesive taught by ‘906 can be used on the capacitance level sensor in apparatus ‘153 in view of ‘606 to have yield the predictable result of securing the sensor the support.

#### **(10) Response to Argument**

10. Response to Argument A:

11. Applicant is trying to distinguish between this application (10/583636) and the other application (10/583697) used in rejection of provisional statutory double patenting by stating that one application is for rinsing fluid (this application) and the other application is for washing fluid. The key to these application are a level sensor that sensing the level of fluid within a dishwasher, which is water. Whether that fluid is called rinsing fluid or washing fluid depends on what part of the operation cycle in the dishwasher is in, but still is the same fluid water. Thus

the scope of the claims in both applications are the same since the applications contain the same structural level sensor which determines the level of fluid in the dishwasher whether that fluid is during the washing or rinsing cycle. Those this provisional statutory double patenting rejection is maintained between this application 10/583636 and application 10/583697.

12. Response to Argument B:

13. Applicant's arguments are hereby moot since the withdrawn of the rejection of claim 11 under 35 U.S.C. 112 first paragraph.

14. Response to Argument C:

15. Applicant is arguing that that reference Wennerberg (US 3539153) is using multiple level sensor to determine the level of the fluid in the dishwasher and the applicant is using only one sensor to determine multiple levels. Wennerberg teaches using capacitive level sensor in a dishwasher to detect multiple fluid height levels (col. 2, lines 30-75) and that this application is not only limited to dishwasher but can be applied to washing machines (col. 1, lines 4-11). The secondary reference Adamski et al (US 4982606) is a capacitive level sensor for a washing machine (abstract, col. 3, lines 15-20) which determines multiple heights of the fluid level (fig. 5, col. 4, lines 40-69, col. 6, line 50-col. 7 line 69). Those it is obvious to one of ordinary skill in the art at the time the invention was made to have used a single capacitive level sensor which detects multiple fluid levels as taught by Adamski as the level sensor in Wennerberg, thus reducing the number of sensors needed in the dishwasher from three to one sensor. Furthermore applicant does not argue that Adamski does not teach the claim structure of a capacitive level sensor that detects more than one level of the fluid as asserted in the above rejection.

16. Response to Argument C1)

17. See above response to argument C.

18. Applicant further argues that the prior art does not teach that the sensor which forms a capacitor whose electrical capacity varies depending on the electrical constant of the medium surrounding the sensor. Adamski clearly teaches that the electrical constant of the medium surrounding the fluid affects the sensor capacitor allowing for the detection of different levels (Adamski col. 4, lines 35-68).

19. Response to Argument C2:

20. Applicant is arguing that the prior art does not teach that the electric circuit preferable closes at a low current level from the sensor. Wennerberg teaches that the circuit attached to the fluid level sensor opens and closes gates in response to signals from the fluid level sensor (col. 3, lines 1-25, col. 4, lines 10-60) and that the current generated by the sensors is passed through the circuitry to activate switches (col. 6, lines 55-75). Thus Wennerberg teaches that the capacitive sensor uses a current to activated open/close a switch in the circuitry attached to the sensor. The fact the reference does not specify if it is a low or high current is irrelevant since the application claim 13 states “electrical circuit **preferably** closes at a low current”. Therefore, closing at low current is optional and not required by the claim.

21. Response to Argument C3:

22. See above response to argument C.

23. Applicant is arguing that the prior art does not preferably qualitatively or quantitatively detect the variations of the electrical signals from the sensor. Adamski clearly teaches that the electrical variations of the sensor are qualitatively or quantitatively measures the

electric response of the sensor to the increase height of the water (fig. 5, col. 4, lines 40-69, col. 6, line 50-col. 7 line 69).

24. Response to Argument C4:

25. See above response to argument C.

26. Wennerberg clearly shows the use of multiple level sensor placed at different locations in the dishwasher to determine the level of the fluid (col. 2, lines 30-75).

27. Response to Argument C5:

28. See above response to argument C.

29. Applicant further arguing that the prior art does not teach the specific placement of the sensor on the base to detect the fluid located on the base of the dishwasher. Wennerberg clearly teaches using multiple sensors to detect multiple level height (low, medium and high, see above for citation) and that that Adamski clearly shows that the sensor extends to the base of the washing machine (fig 1). Those it is well within the ordinary skill level of one of ordinary skill to have placed the sensor at the base of the dishwasher to detect fluid at the base of the dishwasher.

30. Response to Argument C6:

31. See above response to argument C.

32. Applicant is arguing that the prior art does not teach that the sensor detect multiple heights. Adamski clearly teaches that the sensor detects multiple heights (fig. 5, col. 4, lines 40-69, col. 6, line 50-col. 7 line 69).

33. Response to Argument C7:

34. Applicant is arguing that the art does not teach that the sensor has preferably elongated rectangular shape. Applicant is wrong, Adamski clearly shows that the sensor has a elongated rectangular shape (fig. 2, part 50 and 52).

35. Response to Argument C8:

36. See response to argument C5. Applicant further argues that the art does not teach protecting the sensor from the spray arm while it is located within the washing container. First off the sensor, namely the sensor probes has to be located within the container to interact with the water. Also since the probes have circuitry associated with it (see above rejections, Wennerberg teaches that the sensor interact with circuits and Adamski teaches that the probes are attached to circuitry) it is well within the skill level of one of ordinary skill in the art to have place the probes in the wash container and protected the circuitry from the spray arm since the water being dispensed from the spray arm would cause defects in the circuit.

37. Response to Argument C9:

38. See above response to argument C.

39. Applicant is correct that Wennerberg and Adamski do not teach attaching the sensor with an adhesive layer. Hence the third reference Kuchler is used to teach attaching a sensor with an adhesive layer (col. 3, lines 30-45). Applicant does not argue that Kuchler is inappropriately applied for this teaching.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Samuel A Waldbaum/

Examiner, Art Unit 1792

Conferees:

/Michael Cleveland/

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